

Calculo

K-80W

PORTABLE ELECTRONIC CALCULATOR

OWNERS REFERENCE MANUAL



INTRODUCTION

Your K-80W Electronic Calculator represents a significant engineering achievement resulting in full-size capability in a compact package. Major advances in miniaturized computer circuits using single-chip LSI (Large Scale Integration) have provided a rugged and reliable unit, and the self-contained rechargeable battery pack permits convenient use without need for AC power. An AC adapter is available for AC operation and/or recharging.

The K-80W will perform addition, subtraction, multiplication, and division functions, including chain or mixed multiplication and divisions, and utilization of stored constant. Eight digits are provided for entry and read-out, with full-floating or fixed decimal point selection, and positive or negative sign capability. Additional display indicators denote overflow, error, and negative result (minus sign). A meter indicates battery condition when the unit is in use.

It is suggested that the following instructions for operation be read with the calculator at hand, and that all calculation examples be performed to increase your familiarity with the unit.

PREPARATION FOR USE

Battery Power

A rechargeable battery pack is permanently installed in the calculator. A full charge allows at least 3 hours operating time.

AC Power

The calculator may be operated from any AC 50/60 Hz outlet by using the AC Adapter. Plug the adapter into a convenient wall receptacle, and insert the small connector into the "DC 6V" socket on the back of the calculator.

Battery Recharge

The batteries in the calculator are automatically connected to a recharging circuit whenever the AC Adapter is in use, regardless of the position of the calculator power switch.

When operating the unit on battery, observe the battery check meter. When the pointer passes into the red area of the scale the battery should be recharged by leaving the unit plugged into the AC line overnight. A fully discharged battery may take 24 hours to recharge. Nickel-cadmium cells will not be damaged by moderate over-charging. However, if the K-80W is to be left unused for more than few days, it is desirable to unplug the power cord.

Warning

Do not store the calculator in high-temperature areas such as the top of a room heater or the rear package shelf of an automobile exposed to the sun. Satisfactory operation should be obtained over an ambient temperature range of 0 to 50 C (32 to 122F), and relative humidity to 95%. Do not immerse or allow liquids to fall on the unit.

CONTROLS & INDICATORS

Power and "K" Switch

Turns calculator power "ON" & "OFF". Slide switch with 3 positions; in the top position, the "K" operation is in effect. Use of "K" allows a number to be entered and retained as a "constant" for series multiplication or division.

Decimal Switch

Three-position slide switch selects number of decimal positions in answer. "AUTO" places decimal in appropriate position required by calculation. "2" and "3" provide fixed decimal answers, with automatic round-off of additional decimal digits. When the next digit is 0 - 4, the last displayed digit is not changed. When the next digit is 5 - 9, the last displayed digit is increased by 1.

Key

Clears the calculator and the display of all numbers.

Key

Clears last entry (Error correction)

Key

Enters a "multiply" command.

Key

Enters a "divide" command.

Key

Adds the entered number, or carries out a previously entered "multiply" or "divide" command.

Key

Reverse setting of figures from Negative to Positive or vice versa.

Key

Adds a minus sign to an entry. Subtracts the entered number or completes a previously entered "multiply" or "divide" command.

Key

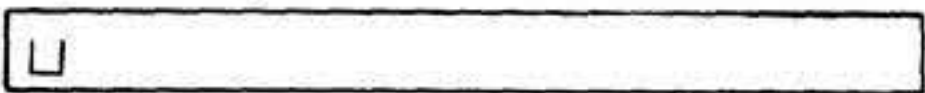
Enters a decimal point.

Keys

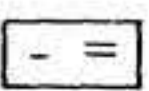
Enters digits of a number (limit 8 digits).

Overflow Indicator

Indicates a calculation result that contains more than eight digits.

Appears as 

Minus Sign Indicator

Activated by the  Key for operations with negative numbers.

Error Indicator

Indicates an entry of more than 8 digits.

Appears as 

CALCULATIONS

1. ADDITION

EXAMPLE: TO CALCULATE $16 + 9 + 8.3 + 4.1 =$

DO THESE STEPS	DISPLAY WILL BE
a. TOUCH C	0.
b. ENTER 16	16.
c. TOUCH \pm	16.
d. ENTER 9	9.
e. TOUCH \pm	25.
f. ENTER 8.3	8.3
g. TOUCH \pm	33.3
h. ENTER 4.1	4.1
i. TOUCH \pm ————— ANSWER	37.4

2. SUBTRACTION

EXAMPLE #1: TO CALCULATE $12.81 - 3.6 =$

DO THESE STEPS	DISPLAY WILL BE
a. TOUCH C	0.
b. ENTER 12.81	12.81
c. TOUCH \pm	12.81
d. ENTER 3.6	3.6
e. TOUCH $=$ ————— ANSWER	9.21

EXAMPLE #2: TO CALCULATE $23 - 6 + 2.1 - 5 =$

DO THESE STEPS	DISPLAY WILL BE
a. TOUCH C	0.
b. ENTER 23	23.
c. TOUCH \pm	23.
d. ENTER 6.	6.
e. TOUCH $=$	17.
f. ENTER 2.1	2.1
g. TOUCH \pm	19.1
h. ENTER 5	5.
i. TOUCH $=$ ————— ANSWER	14.1

EXAMPLE #3: TO CALCULATE $62 - 82 + 10 - 40 =$

DO THESE STEPS	DISPLAY WILL BE
a. TOUCH C	0.
b. ENTER 62	62.
c. TOUCH \pm	62.
d. ENTER 82	82.
e. TOUCH $=$	— 20.
f. ENTER 10	10.
g. TOUCH \pm	— 10.
h. ENTER 40	40.
i. TOUCH $=$	— 50.

3. REVERSE SETTING $\boxed{+/-}$

EXAMPLE: TO CALCULATE $62 - 82 = -20$,

Reverse setting $\boxed{+/-}$ $-20 = +20 + 30 =$

DO THESE STEPS

DISPLAY WILL BE

a. TOUCH \boxed{C}	0.
b. ENTER 62	62.
c. TOUCH $\boxed{+}$	62.
d. ENTER 82	82.
e. TOUCH $\boxed{=}$	20.
f. TOUCH $\boxed{+/-}$	20.
g. TOUCH $\boxed{+}$	20.
h. ENTER 30	30.
i. TOUCH $\boxed{+}$ ————— ANSWER	50.

4. MULTIPLICATION

EXAMPLE #1: TO CALCULATE $29.32 \times 56.5 =$

DO THESE STEPS

DISPLAY WILL BE

a. TOUCH \boxed{C}	0.
b. ENTER 29.32	29.32
c. TOUCH \boxed{X}	29.32
d. ENTER 56.5	56.5
e. TOUCH $\boxed{+}$ ————— ANSWER	1656.58

EXAMPLE #2: TO CALCULATE $3 \times 21 \times 6.1 =$

DO THESE STEPS

DISPLAY WILL BE

a. TOUCH \boxed{C}	0.
b. ENTER 3	3.
c. TOUCH \boxed{X}	3.
d. ENTER 21	21.
e. TOUCH \boxed{X}	63.
f. ENTER 6.1	6.1
g. TOUCH $\boxed{+}$ ————— ANSWER	384.3

EXAMPLE #3: TO CALCULATE $13 \times 6 =$

USE OF 'K' SWITCH $31 \times 8.2 =$

$31 \times 7.6 =$

DO THESE STEPS

DISPLAY WILL BE

a. TOUCH \boxed{C}	0.
b. PUSH POWER SWITCH TO "K"	0.
c. ENTER 31	31.
d. TOUCH \boxed{X}	31.
e. ENTER 6	6.
f. TOUCH $\boxed{+}$ ————— 1st ANSWER	186.
g. ENTER 8.2	8.2
h. TOUCH $\boxed{+}$ ————— 2nd ANSWER	254.2
i. ENTER 7.6	7.6
j. TOUCH $\boxed{+}$ ————— 3rd ANSWER	235.6
k. PUSH 'K' OFF (POWER SWITCH "ON")	

5. DIVISION

EXAMPLE #1: TO CALCULATE $376 \div 53 =$

DO THESE STEPS	DISPLAY WILL BE
a. TOUCH C	0.
b. ENTER 376	376.
c. TOUCH ÷	376.
d. ENTER 53	53.
e. TOUCH ± ————— ANSWER	7.0943396

EXAMPLE #2: TO CALCULATE $81 \div 3 \div 9 =$

DO THESE STEPS	DISPLAY WILL BE
a. TOUCH \boxed{C}	0.
b. ENTER 81	81.
c. TOUCH $\boxed{\div}$	81.
d. ENTER 3	3.
e. TOUCH $\boxed{\div}$	27.
f. ENTER 9	9.
g. TOUCH $\boxed{=}$ ————— ANSWER	3.

EXAMPLE #3: TO CALCULATE $181 \div 15 =$

USE OF 'K' SWITCH

 $96 \div 15 =$
$$117 \div 15 =$$

DO THESE STEPS	DISPLAY WILL BE
a. TOUCH \boxed{C}	0.
b. PUSH POWER SWITCH TO "K"	0.
c. ENTER <u>181</u>	181.
d. TOUCH $\boxed{\div}$	181.
e. ENTER <u>15</u>	15.
f. TOUCH $\boxed{=}$ ————— 1st ANSWER	12.066666
g. ENTER <u>96</u>	96.
h. TOUCH $\boxed{=}$ ————— 2nd ANSWER	6.4
i. ENTER <u>117</u>	117.
j. TOUCH $\boxed{=}$ ————— 3rd ANSWER	7.8
k. PUSH 'K' OFF (POWER SWITCH "ON")	

6. MIXED ARITHMETIC

EXAMPLE #1: TO CALCULATE $23 \times (-4) \div (-6) =$

DO THESE STEPS	DISPLAY WILL READ
a. TOUCH C	0.
b. ENTER <u>23</u>	23.
c. TOUCH X	23.
d. ENTER <u>4</u>	4.
e. TOUCH ÷	92.
f. TOUCH ÷	92.
g. ENTER <u>6</u>	6.
h. TOUCH ÷	15.333333

EXAMPLE #2: TO CALCULATE $\frac{(9 + 6 - 5) \times 8}{20} - 8 =$

DO THESE STEPS	DISPLAY WILL BE
a. TOUCH <input type="text" value="C"/>	<input type="text" value="0."/>
b. ENTER 9	<input type="text" value="9."/>
c. TOUCH <input type="text" value="+"/>	<input type="text" value="9."/>
d. ENTER 6	<input type="text" value="6."/>
e. TOUCH <input type="text" value="+"/>	<input type="text" value="15."/>
f. ENTER 5	<input type="text" value="5."/>
g. TOUCH <input type="text" value="-"/>	<input type="text" value="10."/>
h. TOUCH <input type="text" value="X"/>	<input type="text" value="10."/>
i. ENTER 8	<input type="text" value="8."/>
j. TOUCH <input type="text" value="÷"/>	<input type="text" value="80."/>
k. ENTER 20	<input type="text" value="20."/>
l. TOUCH <input type="text" value="+"/>	<input type="text" value="4."/>
m. ENTER 8	<input type="text" value="8."/>
n. TOUCH <input type="text" value="-"/> ANSWER	<input type="text" value="4."/>

7. EXPONENTS

EXAMPLE #1: TO CALCULATE $(3)^5 =$

DO THESE STEPS	DISPLAY WILL BE
a. TOUCH <input type="text" value="C"/>	<input type="text" value="0."/>
b. PUSH POWER SWITCH TO "K"	<input type="text" value="0."/>
c. ENTER 3	<input type="text" value="3."/>
d. TOUCH <input type="text" value="X"/>	<input type="text" value="3."/>
e. TOUCH <input type="text" value="+"/>	<input type="text" value="9."/>
f. TOUCH <input type="text" value="+"/>	<input type="text" value="27."/>
g. TOUCH <input type="text" value="+"/>	<input type="text" value="81."/>
h. TOUCH <input type="text" value="+"/> ANSWER	<input type="text" value="243."/>
i. PUSH 'K' OFF (POWER SWITCH "ON")	

EXAMPLE #2: TO CALCULATE $6 \div (3)^3 =$

DO THESE STEPS	DISPLAY WILL BE
a. TOUCH <input type="text" value="C"/>	<input type="text" value="0."/>
b. PUSH POWER SWITCH TO "K"	<input type="text" value="0."/>
c. ENTER 6	<input type="text" value="6."/>
d. TOUCH <input type="text" value="÷"/>	<input type="text" value="6."/>
e. ENTER 3	<input type="text" value="3."/>
f. TOUCH <input type="text" value="+"/>	<input type="text" value="2."/>
g. TOUCH <input type="text" value="+"/>	<input type="text" value="0.6666666"/>
h. TOUCH <input type="text" value="+"/> ANSWER	<input type="text" value="0.2222222"/>
i. PUSH 'K' OFF (POWER SWITCH "ON")	

OPERATION OUTLINE

(REFER TO INSTRUCTION MANUAL FOR COMPLETE INFORMATION)

<u>BATTERIES</u>	RECHARGEABLE BATTERY PACK INSTALLED.
<u>POWER</u>	SLIDE POWER SWITCH TO "ON". DO NOT MOVE TO "K" (CONSTANT) POSITION UNLESS REQUIRED FOR CALCULATIONS. WHEN AC ADAPTER IS USED, RECHARGEABLE BATTERIES WILL CHARGE EVEN WHEN POWER SWITCH IS "OFF".
<u>DECIMAL</u>	SET TO "AUTO" FOR FLOATING DECIMAL. SET TO "2" I.E. 4.555 → 4.56 OR 4.544 → 4.54 SET TO "3" I.E. 4.5555 → 4.556 OR 4.5554 → 4.555.
<u>INDICATORS</u>	<p>[SHOWS INPUT EXCEEDS 8 DIGITS. CALCULATIONS MAY PROCEED USING 8 MOST-SIGNIFICANT DIGITS.</p> <p>▮ SHOWS RESULT EXCEEDS 8 DIGITS. CALCULATION STOPPED, AND ANSWER CORRECT WHEN DECIMAL MOVED 8 PLACES TO RIGHT OF DISPLAYED POSITION.</p> <p>METER — WHEN POINTER STAYS IN RED ZONE, RECHARGE BATTERIES, OR USE AC ADAPTER.</p>
<u>CALCULATIONS</u>	<p>ALWAYS BEGIN BY PUSHING [C]</p> <p>IF MISTAKE IS MADE IN ENTRY, [CE] KEY WILL CLEAR ENTRY BUT NOT ACCUMULATOR.</p> <p> $A+B=X$ ENTER A, [+]; ENTER B, [=]; READ X. $A-B=X$ ENTER A, [+]; ENTER B, [-]; READ X. $A \times B=X$ ENTER A, [X]; ENTER B, [=]; READ X. $(-A) \times B=X$ ENTER A, +/- [X]; ENTER B, [=]; READ X. $A \times (-B)=X$ ENTER A, [X]; ENTER B, +/- [=]; READ X. $A \div B=X$ ENTER A, [÷]; ENTER B, [=]; READ X. </p> <p>USING CONSTANT (POWER SWITCH AT "K")</p> <p> $K \times A=X$ ENTER K, [X]; ENTER A, [=]; READ X. $K \times B=Y$ ENTER B, [=]; READ Y. $K \times C=Z$ ENTER C, [=]; READ Z. $A^3=X$ ENTER A, [X]; [=], [=]; READ X. $A \div K=X$ ENTER A, [÷]; ENTER K, [=]; READ X. $B \div K=Y$ ENTER B, [=]; READ Y. $C \div K=Z$ ENTER C, [=]; READ Z. $1 / A=X$ ENTER A, [÷]; [=], [=]; READ X. </p>